

c1  
said cancer system model based on parameters specific to the individual; and  
a selector adapted to select an optimal treatment protocol from said plurality of treatment protocols based on the modified system model.

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c2  
240. (Amended) The system of claim 238 where the system includes a set of control functions that are adapted to uniquely determine an outcome of every single step, wherein said control functions comprise age of cells, state of a current population and associated environment.

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c3  
244. (Amended) The system of claim 243, wherein the system is adapted to incorporate pharmacokinetics and pharmacodynamics, cytostatic effects, cytotoxic effects, and other effects on cell disintegration of anticancer drugs.

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c4  
246. (Twice Amended) The system of claim 234 wherein, said parameters specific to the individual comprise parameters related to tumor dynamics, patient specific drug pharmacokinetics, pharmacodynamics and dynamics of dose-limiting host tissues.

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c5  
466. (Amended) A computer-implemented method for recommending an optimal treatment protocol for treating cancer using drugs for an individual, said method comprising:  
creating a cancer system model;  
enumerating a plurality of treatment protocols for treating cancer using drugs;  
modifying the system model based on parameters specific to the individual;  
selecting an optimal treatment protocol from said plurality of treatment protocols based

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on the modified system model; and

recommending said optimal treatment.

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CL  
472. (Amended) The method of claim 470 where a set of control functions uniquely determine an outcome of every single step, wherein said control functions comprise age of cells, state of a current population and associated environment.

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C7  
476. (Amended) The method of claim 475, wherein pharmacokinetics, pharmacodynamics, cytotoxic effects, cytostatic effects and other effects on cell disintegration of anticancer drugs are incorporated into the model.

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CS  
478. (Amended) The method of claim 466 wherein, said parameters specific to the individual comprise parameters related to tumor dynamics, patient specific drug pharmacokinetics, pharmacodynamics and dynamics of dose-limiting host tissues.

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